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10 CFR 20.1003

September 6, 2006

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U. S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

> Braidwood Station, Units 1 and 2 Facility Operating License Nos. NPF-72 and NPF-77 NRC Docket Nos. STN 50-456 and STN 50-457

> Byron Station, Units 1 and 2 Facility Operating License Nos. NPF-37 and NPF-66 NRC Docket Nos. STN 50-454 and STN 50-455

Clinton Power Station, Unit 1 Facility Operating License No. NPF-62 NRC Docket No. 50-461

Dresden Nuclear Station, Units 1, 2 and 3 Facility Operating License No. DPR-2 Renewed Facility Operating License Nos. DPR-19 and DPR-25 NRC Docket Nos. 50-10, 50-237, 50-249 and 72-37

LaSalle County Station, Units 1 and 2 Facility Operating License Nos. NPF-11 and NPF-18 NRC Docket Nos. STN 50-373 and STN 50-374

Limerick Generating Station, Units 1 and 2 Facility Operating License Nos. NPF-39 and NPF-85 NRC Docket Nos. 50-352 and 50-353

Oyster Creek Generating Station Facility Operating License No. DPR-16 NRC Docket Nos. 50-219 and 72-15

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> Peach Bottom Atomic Power Station, Units 1, 2 and 3 Facility Operating License No. DPR-12 Renewed Facility Operating License Nos. DPR-44 and DPR-56 NRC Docket Nos. 50-171, 50-277, 50-278 and 72-1027

> Quad Cities Nuclear Power Station, Units 1 and 2 Renewed Facility Operating License Nos. DPR-29 and DPR-30 NRC Docket Nos. 50-254, 50-265

Three Mile Island Nuclear Station, Unit 1 Facility Operating License No. DPR-50 NRC Docket Nos. 50-289

- Subject: Response To Request For Additional Information Application to Use Weighting Factors for External Exposure (TAC Nos. MC9247-MC9263)
- Reference: (1) Letter from P. B. Cowan (Exelon/AmerGen) to USNRC, "Application to Use Weighting Factors for External Exposure," dated December 14, 2005
  - (2) Letter from P. B. Cowan (Exelon/AmerGen) to USNRC, "Response To Request For Additional Information – Application to Use Weighting Factors for External Exposure," dated April 18, 2006

This letter provides additional information in response to the NRC request for additional information, dated August 8, 2006, regarding the Exelon Generation Company, LLC (Exelon) and AmerGen Energy Company, LLC (AmerGen) application to use weighting factors for calculating external whole body dose, pursuant to 10 CFR 20.1003. The Exelon/AmerGen application was previously provided in Reference 1. Additional information was subsequently submitted to NRC in Reference 2. Enclosed is a detailed response to the NRC request for additional information.

If any additional information is needed, please contact Mr. David J. Distel at (610) 765-5517.

Sincerely,

SPAR

Vamel/E

Pamela B. Cowan Director – Licensing & Regulatory Affairs Exelon Generation Company, LLC AmerGen Energy Company, LLC

Enclosures: (1) Response to Request for Additional Information

(2) List of Regulatory Commitments

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cc: Regional Administrator - NRC Region I **Regional Administrator - NRC Region III** NRC Project Manager, NRR - Braidwood Station NRC Project Manager, NRR - Byron Station NRC Project Manager, NRR - Clinton Power Station NRC Project Manager, NRR - Dresden Nuclear Power Station NRC Project Manager, NRR - LaSalle County Station NRC Project Manager, NRR - Limerick Generating Station NRC Project Manager, NRR - Ovster Creek Generating Station NRC Project Manager, NRR - Peach Bottom Atomic Power Station NRC Project Manager, NRR - TMI Unit 1 NRC Project Manager, NRR - Quad Cities Nuclear Power Station NRC Senior Resident Inspector - Braidwood Station NRC Senior Resident Inspector - Byron Station NRC Senior Resident Inspector - Clinton Power Station NRC Senior Resident Inspector - Dresden Nuclear Power Station NRC Senior Resident Inspector - LaSalle County Station NRC Senior Resident Inspector - Limerick Generating Station NRC Senior Resident Inspector - Oyster Creek Generating Station NRC Senior Resident Inspector - Peach Bottom Atomic Power Station NRC Senior Resident Inspector - TMI Unit 1 NRC Senior Resident Inspector - Quad Cities Nuclear Power Station Illinois Emergency Management Agency - Division of Nuclear Safety Director, Bureau of Radiation Protection - Pennsylvania Department of Environmental Resources Director, Bureau of Nuclear Engineering, New Jersey Department of Environmental Protection Chairman, Board of County Commissioners of Dauphin County. PA Chairman, Board of Supervisors of Londonderry Township, PA Mayor of Lacey Township, Forked River, NJ R. I. McLean, State of Maryland R. R. Janati, Commonwealth of Pennsylvania

M. Thorp-Kavanaugh, NRC Project Manager, NRR - (Exelon/AmerGen Fleet)

### **ENCLOSURE 1**

## **RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

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#### 1. NRC Question

The NRC staff does not endorse the dosimeter placement criteria in ANSI/HPS N13.41, as it is inconsistent with 10 CFR Part 20 requirements. Verify that when determining the effective dose equivalent with the weighting factors in Table 1 of ANSI/HPS N13.41, each body compartment, or composite compartment (e.g., adjoining compartments that are combined and treated as one compartment), will be monitored at the highest exposed part of that compartment.

#### Response

Dosimetry placement will be controlled in accordance with Exelon/AmerGen procedures. These procedures will be revised to require that when using the weighting factors in Table 1 of ANSI/HPS N13.41, dosimetry is to be placed at the highest exposed part of the compartment or composite compartment.

#### 2. <u>NRC Question</u>

In determining the highest exposed part of a compartment, or composite compartment, verify that dosimeter placement criteria are consistent with the criteria in NRC Inspection Procedure 71121.01-03.04.c.

#### <u>Response</u>

Exelon/AmerGen procedures will be revised to require an evaluation of the dose gradient across the compartment when determining dosimeter placement. The deep dose equivalent will be assigned to the part receiving the highest dose.

## **ENCLOSURE 2**

## LIST OF REGULATORY COMMITMENTS

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#### SUMMARY OF EXELON/AMERGEN COMMITMENTS

The following table identifies commitments made in this document by Exelon/AmerGen. (Any other actions discussed in the submittal represent intended or planned actions by Exelon/AmerGen. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE OR "OUTAGE"
Exelon/AmerGen procedures will be revised to require that when using the weighting factors in Table 1 of ANSI/HPS N13.41, dosimetry is to be placed at the highest exposed part of the compartment or composite compartment.	Upon implementation of NRC approved use of revised weighting factors.
Exelon/AmerGen procedures will be revised to require an evaluation of the dose gradient across the compartment when determining dosimeter placement. The deep dose equivalent will be assigned to the part receiving the highest dose.	Upon implementation of NRC approved use of revised weighting factors.